

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-19, 21-36, 38-43 and 48-55 are presently active in this case, Claims 1, 8, 23, 30 and 52-55 amended by way of the present amendment, and Claim 20 canceled by way of the present amendment.

In the outstanding Official Action Claim 54 was rejected under 35 U.S.C. § 112, second paragraph; Claims 1-8, 12-15, 20-25, 29-32, 38, 39, 48-53 and 55 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's admitted prior art in view of U.S. Patent No. 5,332,443 to Chew; Claims 9-11 and 34-36 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's admitted prior art in view of Chew, and further in view of U.S. Patent No. 5,795,122 to Bowers or U.S. Patent Publication 2003/0185653 to Csik et al.; Claims 16-19, 26 and 33 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's admitted prior art in view of Chew, and further in view of U.S. Patent No. 6,267,543 to David et al. and Claims 18, 19, 27, 28 and 40-43 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Applicant's admitted prior art in view of Chew and further in view of U.S. Patent No. 6,468,925 to Campbell et al.

With regard to the rejection of Claim 54 under 35 U.S.C. § 112, second paragraph, Applicant has amended Claim 54 to delete the language objected to in paragraph 6 of the Official Action. Therefore the rejection under 35 U.S.C. § 112, second paragraph is moot.

Turning now to the merits, in order to expedite issuance of a patent in this case, Applicant has amended independent Claims 1, 8, 23 and 30 to clarify the patentable features of the present invention over the cited references. Specifically, Applicant has amended Claim 1 to recite that the stem and locking pin are not made from or coated with the material that is highly resistant to erosion resulting from a plasma. Claim 8 has been amended to

recite that a portion of the first fastening component other than the stem and locking pin is at least one of made of and coated with a material that is highly resistant to erosion resulting from plasma processing. Thus, Claims 1 and 8 have been amended to clarify that a portion of the fastening component is coated with a protective coating while the stem and locking pin are not coated with a protective coating. Method Claims 23 and 30 have been similarly amended to clarify that the stem and/or locking pin are not coated with a protective coating. This feature is supported at least by paragraph 20 of Applicant's specification as originally filed, and therefore the amendments to independent Claims 1, 8, 23 and 30 do not raise an issue of new matter. Further, paragraph 20 indicates that the unprotected portion of the fastening component may be made of a material that possesses characteristics necessary to withstand the loads created by use of the fastener and the conditions created by the plasma processing.

In contrast, the newly cited reference to Chew et al. discloses a substrate lift finger assembly 72 attached to a hoop 78, and having a ceramic cover plate 96 attached to the lift finger 70 with a ceramic quarter turn fastener 100. As disclosed in Chew et al., the fastener 100 and the cover plate 96 are made from alumina ceramic. That is, the entire fastener 100 is made from alumina ceramic, rather than having only a portion of the fastener made from such material. Thus, Chew et al. does not disclose that a stem and/or pin of the fastener 100 is not made from or coated with a material that is highly resistant to erosion resulting from plasma processing as required by Applicant's independent Claims 1, 8, 23 and 30.

Further, Claims 1, 8, 23 and 30 require that the fastener fasten together a gas inject plate and upper assembly. The Official Action acknowledges that Chew et al. does not disclose this feature, but cites applicants admitted prior art for showing the fastening of a gas inject plate and upper assembly using an ordinary nut and bolt. Applicant submits, however, that the fastener 100 of Chew et al. would not be of sufficient strength to fasten together a gas

inject plate and upper assembly. More specifically, the ceramic fastener 100 is used to fasten a small cover plate 96 on to the ring 78. The ceramic fastener provides sufficient strength for this application, but would be unsuitable for securing an injection plate to an upper electrode, particularly where an elastic element is used to impose a separation force between the upper electrode and injection plate as also recited in dependent claims. Thus, one of ordinary skill in the art would not be motivated to replace the nut and bolt configuration of the admitted prior art with the ceramic fastener 100 of Chew et al. to fasten a gas injection plate to an upper electrode as required by Applicant's independent claims.

The secondary references do not make up the deficiencies of Chew et al. Specifically, Bowers and Csik et al. are cited for teaching of a threaded fastener component that allows axially adjusting a fastening length of the fastening component. David et al. is cited for its teaching of a restricting or stopping element for a quarter turn fastener, and Campbell et al. is cited for teaching a conductive seal element. Thus, the remaining cited references are not offered for and do not teach the exclusion of a protective coating from a portion of the fastening component as required by Applicant's independent claims. In this regard, Applicant notes that this feature was previously claimed in newly added Claims 52-55, but not addressed in the outstanding Official Action.

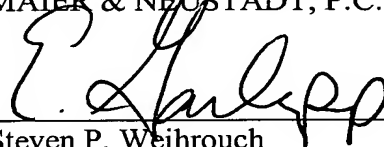
Thus, Applicant's independent Claims 1, 8, 23 and 30 patentably define over the cited references. As the remaining pending claims in this case depend from one of the independent claims distinguished above, these remaining dependent claims also patentably define over the cited references. Nevertheless, Applicant notes that Claims 52-55 have been amended to recite that the stem and/or pin are made from a different material than a coated portion of the fastener, the different material possessing a characteristic necessary to withstand loads created by the fastening component. Thus, these claims emphasize that the uncoated portion of the fastening component is designed for strength. That is, the amended claims cover a

fastening component wherein portions of the fastening component that are exposed to the plasma environment are made from or coated with a plasma resisting coating, while non-exposed portions of the fastening component are made from a material that considers the forces imposed on the fastening component while under load. For the reasons discussed above, the cited references also do not disclose this feature. Therefore, Claims 52-55 provide an additional basis for patentability over the cited references.

Consequently, in view of the present amendment, no further issues are believed to be outstanding in the present application and the present application is believed to be in condition for formal allowance. An early and favorable action is therefore respectfully requested.

Respectfully submitted,

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